

WE CLAIM:

1. A stent having a member of scaffold, said scaffold comprising a plurality
5 of metal struts and at least one element chosen from the follows:
 - (a) at least one navigation pad for exhibiting distinctive radiological
image, wherein said navigation pad is integrally coupled to said
struts;
 - (b) at least one drug-storing reservoir, wherein said reservoir is
10 integrally coupled to said struts;
 - (c) a least one interlocking pad, wherein said interlocking pad is
integrally coupled to said struts;
 - (d) at least one fastening pad for attaching biological membranes to
said stent, wherein said fastening pad is integrally coupled to said
15 struts; and
 - (e) wherein said metal struts having porous surface.
2. The stent of claim 1, wherein said scaffold is made of a material chosen
from metals, metal alloys, and metal composites of titanium, iron, nickel,
20 chromium, cobalt, molybdenum, aluminum, vanadium, platinum, iridium, gold,
silver, palladium, tantalum, niobium, zirconium, copper, columbium,
manganese, cadmium, zinc, tungsten, boron.
3. The stent of claim 1, wherein said drug-storing reservoir having one open
25 end.
4. The stent of claim 1, wherein said drug-storing reservoir having front and
back open ends.

5. The stent of claim 3 or 4, wherein said open end is covered with at least one layer of polymeric coating means for regulating drug elution from said reservoir.
- 5 6. The stent of claim 1, wherein said element of porous surface comprising a plurality of pores and channel, wherein the periphery of said pores and channels are defined by the material and the surface of said struts.
7. The stent of claim 1 is made by the process comprising metal injection
10 molding.
8. A stent having a member of scaffold, said scaffold comprising a plurality of metal struts, wherein said metal struts having porous surface means for delivering drugs to the implantation site of said stent.
- 15 9. A stent having a member of scaffold, said scaffold comprising a plurality of metal struts, wherein said metal struts having porous surface means for enhancing mechanical fixation of said struts at the implantation site of said stent.
- 20 10. The stent of claims 8 and 9, wherein the surface of said scaffold is covered with at least one layer of polymeric coating.
11. A stent made by the process comprising the steps of metal injection molding.
- 25 12. A modulated stent made by the process comprising the steps of metal injection molding of two or more stent segments and fastening said stent segments.
- 30 13. A method for making a metal stent, comprising steps:

- (a) compounding a mixture of at least one metal alloy and at least one polymer binder;
 - (b) molding said mixture to form a composite structure comprising a strut member and a supporting member;
 - 5 (c) sintering said molded composite structure
14. The method of claim 13 further comprising a step of removing said supporting member or substantial amount of said supporting member.
- 10 15. The method of claim 14 further comprising an etching step for forming porous surface of said stent.
16. The method of claims 14 and 15 further comprising a heat-treating step at a temperature below the melting point of said metal alloy for altering the surface
- 15 configurations or the mechanical properties of said stent.
17. A method for making a modulated stent comprising steps:
- (a) compounding a mixture of at least one metal alloy and at least one polymer binder;
 - 20 (b) molding said mixture to form two or more composite structures each comprising a strut member and a supporting member;
 - (c) sintering said molded composite structures;
 - (d) removing said supporting member or substantial amount of said supporting member;
 - 25 (e) aligning two or more said composite structures on a mandrel;
 - (f) fastening said aligned composite structures; and
 - (g) removing said mandrel.
18. The method of claim 17 further comprising an etching step for forming
- 30 porous surface of said stent.

19. The method of claims 17 and 18 further comprising a heat-treating step at a temperature below the melting point of said metal alloy for altering the surface configurations or the mechanical properties of said stent.

- 5 20. The method of claim 19 further comprising a mechanical manipulating step for altering the surface configuration or the mechanical properties of said stent.